



The Lead Link

News for Minnesota's Lead Professionals

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Take-home Lead: A Preventable Risk For Your Family



Take-home Lead: A Hazard for Children and Adults

Adult family members employed in occupations like construction or lead smelting, or with hobbies such as making ammunition from lead shot, can be exposed to lead on the job. Lead dust can be carried home on their clothes, shoes, skin and hair. Lead dust can also contaminate their cars. This lead dust can be passed onto children and other family members. This is referred to as "*take-home lead*."

Workers must follow safety precautions to protect themselves and their families from the lead they come in contact with on the job.

Exposure to lead can have serious health effects for both children and adults. A child under the age of six, a pregnant woman or a developing fetus can experience particularly dangerous health effects from lead exposure.

Continued on page 2

Do you have one of the following jobs or hobbies?

*You may be bringing lead home
to your family!*

- ✓ Battery manufacturing
- ✓ Construction and demolition, including abrasive blasting
- ✓ Radiator repair
- ✓ Lead smelting
- ✓ Casting with lead, brass or bronze
- ✓ Foundry operations
- ✓ Ceramics and some plastics
- ✓ Firing range instructor or janitor
- ✓ Bridge repair
- ✓ Home renovations
- ✓ Ammunition/bullet making
- ✓ Plumber/pipefitter
- ✓ Soldering of electrical circuits or in stained glass making

In This Issue:

- ☐ TAKE-HOME LEAD:
A PREVENTABLE RISK
- ☐ NEW RULES ON LEAD
DISCLOSURE, TRAINING
AND CERTIFICATION
RELEASED
- ☐ TRAINING COURSE SCHEDULE
- ☐ READER SATISFACTION
SURVEY ENCLOSED



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Lead poisoning may cause learning, behavior and health problems in young children. Miscarriages, premature births and stillbirths are associated with a woman's exposure to lead before or during pregnancy. Lead can cross the placenta, and may affect the fetus' brain and nervous system development.

**Adults also can and do become lead poisoned.
Some symptoms of adult lead poisoning are:**

EARLY SYMPTOMS

- ✓ FATIGUE
- ✓ UPSET STOMACH/STOMACH CRAMPS
- ✓ POOR APPETITE
- ✓ IRRITABILITY OR NERVOUSNESS
- ✓ HEADACHE
- ✓ SLEEPLESSNESS
- ✓ METALLIC TASTE
- ✓ REPRODUCTIVE PROBLEMS
- ✓ HIGH BLOOD PRESSURE
- ✓ DEPRESSION
- ✓ HARD TIME CONCENTRATING
- ✓ MUSCLE AND/OR JOINT PAIN

LATER SYMPTOMS

- ✓ CONSTIPATION
- ✓ NAUSEA
- ✓ WEIGHT LOSS
- ✓ MEMORY LOSS
- ✓ MUSCLE AND/OR JOINT PAIN
- ✓ WEAK WRISTS OR ANKLES
- ✓ KIDNEY PROBLEMS
- ✓ STOMACH ACHES & PAINS
- ✓ REPRODUCTIVE PROBLEMS
- ✓ ANEMIA

Symptoms of lead poisoning may be subtle, and not noticeable at first. Over time lead can cause permanent damage to the brain, blood, nerves, kidneys and reproductive organs in adults.

Exposure to lead can have serious consequences on the reproductive health of men and women. In men, exposure to lead can cause impotence, lowered sex drive, and affect the number, motility and normal development of sperm. Lead's affect on sperm can reduce fertility and has been linked to miscarriages and birth defects in their partners.

In women, exposure to lead may reduce fertility and sex drive. And again, there can also be negative health affects on a pregnant woman and her developing fetus.

Recent exposure to lead is measured with a blood lead test. The amount of lead in the blood is measured in micrograms of lead per deciliter of whole blood (ug/dL). This blood test can be performed by your family doctor. A high blood lead level can indicate that lead is building up in the body faster than it can be eliminated. Having a blood lead test is the only way to determine whether workers or their family members have been exposed to too much lead.

Lead in the Body: How Much is Too Much?

How much lead in the body is too much? The Centers for Disease Control and Prevention (CDC) have developed stringent guidelines for blood lead levels in children and adults. For adults in their childbearing years, the CDC has established a blood lead level of 25 ug/dL or greater as hazardous. For children, a blood lead level of 10 ug/dL or greater has been designated as a level of concern.

In 1978, the Occupational Safety and Health Administration (OSHA) established a lead standard for workers in general industry settings. A lead standard for construction was established in 1993. Both lead standards define minimum safety precautions which employers must provide for their employees exposed to lead on the job. For working adults, OSHA has defined 50 ug/dL as the blood lead level at which the worker must be removed from settings where lead exposure may take place. Workers are not allowed to return to work until their blood lead level drops below 40 ug/dL. Contact Minnesota OSHA at 612-296-2116 for a copy of either the general industry or construction industry lead standard.



Revised Standards for Lead Training and Certification Released

In August, the U.S. Environmental Protection Agency (EPA) released a new lead training and certification rule titled "Lead: Requirements for Lead-Based Paint Activities." In EPA's own words, "These regulations are being issued to ensure that the American public has a well-trained and qualified work force to assist them in identifying and addressing lead-based paint hazards in their homes." Included in these regulations are provisions for training and certifying lead professionals, accreditation of lead-related training programs, standards for performing lead-based paint activities, and a model state program. This model state program provides a process for states, Indian tribes, and U.S. territories to seek approval to administer these programs.

The rule covers lead-hazard reduction work specific to residential housing. It does not cover training or licensing criteria for lead-related work for commercial or steel structures, such as bridges and water towers.

LEAD-RELATED PROFESSIONS

Requiring A Certificate Or License After August 1998

Worker

Inspector

Contractor/Supervisor

Risk Assessor

Project Designer

The new training and certification rule specifies five lead-related professions for which training and certification will be required: worker, inspector, contractor/supervisor, risk assessor, and project designer. "Risk assessor" and "project designer" are new job classifications provided for in the rule. Currently, Minnesota licenses or certifies individuals as lead workers, contractor/supervisors, and inspectors. Requests for public comment and administrative rule making will occur during the next 18 months, to allow the MDH to meet the requirements outlined in the new rule. States must adopt rules regarding certification and training which are at least as stringent as the EPA's regulations. The EPA will establish and conduct programs in states that do not have their own programs in place by August 1998.

Contact the Minnesota Department of Health Lead Program at 612-215-0890 to learn more about becoming a licensed lead abatement contractor or inspector, or a certified lead worker, or to obtain more information on the EPA regulation. ■

New Lead-based Paint Disclosure Rule Announced

Recently, the U.S. Environmental Protection Agency (EPA) and the Department of Housing and Urban Development (HUD) published a final rule titled "Lead: Requirements for Disclosure of Known Lead-based Paint and/or Lead-based Paint Hazards in Housing." This rule requires persons selling or leasing most residential housing built before 1978 to tell potential buyers or renters of any known lead-based paint hazards on or in the property.

Sellers or lessors must provide all new buyers or renters with a copy of the EPA brochure titled *"Protect Your Family From Lead in Your Home,"* and provide copies of reports or any other documentation of known lead-based paint hazards on or in the property. The requirements apply to any structure on the property that is associated with residential use. This includes garages, fences, play equipment and storage sheds. Certain disclosure and acknowledgment language must be included in sales and leasing contracts. In addition, potential home buyers will be given ten days prior to the sale to test the property for lead. The potential buyer will assume the cost of having the property tested. However, if lead is discovered, the current homeowner is not required to remove the lead paint hazard.

The disclosure requirements took effect September 6, 1996 for owners of more than four residential dwellings. For owners of up to four residential dwellings, the requirements were effective on December 6, 1996.

The new disclosure rule covers repair and renovation work as well. However, EPA has not determined an effective date for the disclosure requirements as they apply to renovators. At some point in the future, EPA has indicated that renovators will also be required to give their clients a copy of the EPA disclosure brochure before they begin work in houses built before 1978.

Single copies of the EPA disclosure brochure may be obtained from the Minnesota Department of Health Lead Program at 612-215-0890. Contact the National Lead Clearinghouse for single copies of the brochure or copies of the final rule (1-800-424-LEAD). Multiple copies of the brochure may be ordered from the Government Printing Office at 202-512-1800 (stock number 055-000-00507-9). The cost is \$26.00 for a pack of 50 brochures. The Minnesota Multi Housing Association (MHA) also sells copies of the brochure to their members. Contact the MHA at 612-854-8500 for more information about ordering the brochure. ■

All courses listed run from March through June 1997, and are offered in Minnesota. For specific course locations, courses offered outside Minnesota, and for other scheduled course times and dates, please contact the course providers listed at the end of

TRAINING LEAD

Training Course Schedule

the schedule or the MDH Lead Program (612-215-0890). Only the names of course providers whose courses appear in the schedule are listed. Contact MDH for a complete list of lead-related course providers. ■

CONTRACTOR-SUPERVISOR INITIAL COURSES

Successful completion of the following courses will make the participant eligible to apply for MDH licensure as a lead abatement contractor or MDH certification as a lead abatement worker.

COURSE PROVIDER	LOCATION	COURSE DATES
Midwest Environmental Consulting	Arden Hills, MN.	3/17 - 20 4/28 - 5/1 5/19 - 22
University of North Dakota	Grand Forks, ND.	4/8 - 11

INSPECTOR INITIAL COURSES

Successful completion of the following courses will make the participant eligible to apply for an MDH lead inspector license.

COURSE PROVIDER	LOCATION	COURSE DATES
Midwest Center	St. Paul, MN.	4/21 - 23

CONTRACTOR-SUPERVISOR/WORKER REFRESHER COURSES

Successful completion of a one day contractor/worker refresher course is required to renew the MDH lead abatement license/certificate.

COURSE PROVIDER	LOCATION	COURSE DATES
Midwest Environmental Consulting	Arden Hills, MN.	3/21, 5/2, 5/23
University of North Dakota	Grand Forks, ND.	4/7
Midwest Center	St. Paul, MN.	5/27

INSPECTOR REFRESHER

Successful completion of a one day lead inspector refresher course is required to renew the MDH lead inspector license.

COURSE PROVIDER	LOCATION	COURSE DATES
Midwest Center	St. Paul, MN.	3/5
Midwest Environmental Consulting	Arden Hills, MN.	3/10, 4/28, 6/30

COURSE PROVIDER ADDRESSES AND PHONE NUMBERS

The following addresses and phone numbers are for those trainers providing the courses listed in the training course schedule. Contact MDH for a complete list of approved course providers.

Midwest Environmental Consulting, L.L.C.
5385 401st Avenue N.W.
Dalbo, MN. 55017
(612) 757-5541

Midwest Center for Occupational Health and Safety
640 Jackson Street
St. Paul, MN. 55101
(612) 221-3992

Univ. of North Dakota Environmental Training Institute
P.O. Box 9031
Grand Forks, ND.
58202-9031
(701) 777-3341



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Take-home Lead *Continued from Page 2*

A Minnesota Perspective

The Minnesota Department of Health (MDH) is involved in a project designed to increase understanding of the take-home lead problem. Federal and state agencies are collaborating on this effort. The project is called "ABLES," which stands for the Adult Blood Lead Epidemiology and Surveillance program. It's administered by the National Institute of Occupational Safety and Health (NIOSH), and it seeks to identify cases of elevated blood lead among adults in the United States. Blood lead level data are collected from local health departments, private health care providers, and both private and state reporting laboratories.

*As of September 30,
263 adults in Minnesota had been
identified as having a blood lead level
of 25ug/dL of blood or higher during 1996.*

Two major goals of the ABLES project are to identify high risk industries and occupations, and to determine the extent of the adult lead problem. This information will help MDH target educational efforts to workers at risk for being poisoned by lead on the job. In turn, these workers will be able to protect their families from being exposed to hazardous take-home lead.

The Minnesota Department of Health has been collecting data for the ABLES project since 1995. As of September 30, 263 adults in Minnesota had been identified as having a blood lead level of 25ug/dL of blood or higher during 1996. This is the level identified by the CDC as hazardous for adults. Data are still being collected and analyzed to determine the source of lead exposure for these adults.

Protection from Take-home Lead

Take-home lead exposures most frequently occur when workers wear their lead-contaminated work clothes home, or wash their clothes with the family laundry. Several steps can be taken to protect you and your family from exposure to lead:

- Don't eat, drink or smoke on the job.
- Wash hands before eating, drinking, smoking or touching your face after working with lead.
- Wear the proper protective equipment, including the proper respirator.
- Shower, wash your hair and change into clean clothes, including shoes, before leaving the workplace.
- Store street clothes in a separate locker from your work clothes.
- Wash work clothes separately from other laundry. After washing lead-contaminated clothing and removing them from the machine, run the rinse cycle once before using the washing machine again.
- Eat a well-balanced diet. Lead is more easily absorbed on an empty stomach. Proper nutrition can help reduce and prevent the absorption of lead in the body.
- Get regular blood lead tests.

Even if you work with lead on the job, it does not have to negatively affect you or your family. By following the proper safety precautions, you can protect your health, and avoid bringing lead home to your family. If you think proper safety precautions are not being offered to you on the job, or you would like more information about worker safety, contact Minnesota OSHA at 612-296-2116. Contact the MDH Lead Program at 612-215-0890 for more information on protecting yourself and your family from take-home lead. ■

The National Institute of Occupational Safety and Health (NIOSH) offers a toll-free number to answer questions about lead-related occupational health and safety concerns. Call 1-800-356-4674 for more information.